

V. AFFORDABILITY

A. Overview

108. The 1996 Act requires that the Commission and the states ensure that universal services are affordable.²³¹ In this section, we determine the factors to be considered in examining affordability, including subscribership levels and other non-rate factors that may influence a consumer's decision to subscribe to services designated as universal services. We conclude that the states, by virtue of their local ratemaking authority, should exercise primary responsibility for determining the affordability of rates. Finally, the Commission and states, working in partnership, should jointly examine the factors identified at the state level that may contribute to low penetration rates in states where subscribership levels are particularly low. In such states, we believe joint efforts between the Commission and the states may be helpful in increasing subscription.

B. Affordability

1. Background

109. Section 254(b)(1) provides that "[q]uality services should be available at just, reasonable, and affordable rates."²³² In addition, section 254(i) requires that "[t]he Commission and the States should ensure that universal service is available at rates that are just, reasonable, and affordable."²³³ The Joint Board recommended that a determination of affordability should take into consideration rate levels and non-rate factors such as local calling area size, income levels, cost of living, population density, and other socioeconomic indicators.²³⁴ In addition, the Joint Board found that both the states and the Commission should play roles in ensuring affordable rates, consistent with the statutory mandate embodied in section 254(i).²³⁵

2. Discussion

110. In General. We agree with and adopt the Joint Board's finding that the definition of affordability contains both an absolute component ("to have enough or the means

²³¹ 47 U.S.C. § 254(i). *See also* 47 U.S.C. § 254(b)(1).

²³² 47 U.S.C. § 254(b)(1).

²³³ 47 U.S.C. § 254(i). *See also* Joint Explanatory Statement at 134.

²³⁴ Recommended Decision, 12 FCC Rcd at 151, 153.

²³⁵ Recommended Decision, 12 FCC Rcd at 154.

for"), which takes into account an individual's means to subscribe to universal service, and a relative component ("to bear the cost of without serious detriment"), which takes into account whether consumers are spending a disproportionate amount of their income on telephone service.²³⁶ The Joint Board noted the concern of commenters that, because telephone service is considered a modern necessity, some consumers may subscribe to telephone service irrespective of whether the rate charged imposes a significant hardship and therefore high subscribership rates do not ensure that rate levels are affordable.²³⁷ In light of the Joint Board's findings, we agree with the Joint Board that we and the states must consider both the absolute and relative components when making the affordability determinations required under section 254.²³⁸ To that end, we adopt the Joint Board's recommendation that a determination of affordability take into consideration both rate levels and non-rate factors, such as consumer income levels, that can be used to assess the financial burden subscribing to universal service places on consumers.²³⁹

111. The Joint Board expressly rejected suggestions that the Commission establish a nationwide affordable rate, including proposals to use an average of current rates as a measure of affordability, and we agree with this approach.²⁴⁰ As the Joint Board reasoned, a nationwide rate would ignore the vast differences within and among regions that can affect what constitutes affordable service.²⁴¹ Accordingly, we adopt the Joint Board's finding that, because various factors, many of which are local in nature, affect rate affordability, it is not appropriate to establish a nationwide affordable rate.²⁴²

112. Subscribership Levels. We also concur in the Joint Board's finding that subscribership levels provide relevant information regarding whether consumers have the means to subscribe to universal service and, thus, represent an important tool in evaluating the affordability of rates.²⁴³ Based on recent nationwide subscribership data, the Joint Board

²³⁶ Recommended Decision, 12 FCC Rcd at 151 (*citing Webster's New World Dictionary* at 23).

²³⁷ Recommended Decision, 12 FCC Rcd at 152 n.403.

²³⁸ See 47 U.S.C. § 254(i).

²³⁹ The non-rate factors affecting a consumer's ability to afford telephone service are discussed below.

²⁴⁰ Recommended Decision, 12 FCC Rcd at 154.

²⁴¹ Recommended Decision, 12 FCC Rcd at 153.

²⁴² Recommended Decision, 12 FCC Rcd at 154.

²⁴³ Recommended Decision, 12 FCC Rcd at 152.

judged that existing local rates are generally affordable.²⁴⁴ We find that recent subscribership data, indicating that 94.2 percent of all American households subscribed to telephone service in 1996, and the record in this proceeding are consistent with the Joint Board's determination.²⁴⁵ We recognize that affordable rates are essential to inducing consumers to subscribe to telephone service, and also that increasing the number of people connected to the network increases the value of the telecommunications network. Further, we note that insular areas generally have subscribership levels that are lower than the national average, largely as a result of income disparity, compounded by the unique challenges these areas face by virtue of their locations.²⁴⁶

113. We also agree with the Joint Board²⁴⁷ and commenters,²⁴⁸ however, that subscribership levels are not dispositive of the issue of whether rates are affordable. For example, we agree with the view that subscribership levels do not reveal whether consumers are spending a disproportionate amount of income on telecommunications services.²⁴⁹ As the Joint Board concluded, subscribership levels do not address the second component of affordability, namely, whether paying the rates charged for services imposes a hardship for those who subscribe.²⁵⁰ Accordingly, we conclude, as discussed further below, that the Commission and states should use subscribership levels, in conjunction with rate levels and certain other non-rate factors, to identify those areas in which the services designated for support may not be affordable.

²⁴⁴ Recommended Decision, 12 FCC Rcd at 154.

²⁴⁵ Federal Communications Commission, Industry Analysis Division, *Trends in Telephone Service* (rel. March 28, 1997) at Table 2. *See, e.g.*, Bell Atlantic comments at 2 (the Commission should affirm the Joint Board's finding that local rates are generally affordable). *But see* Governor of Guam comments at 10 (rates are not affordable in Guam).

²⁴⁶ *See, e.g.*, Puerto Rico Tel. Co. comments at 15 (national median income is 3.54 times higher than the Puerto Rico median income); CNMI NPRM comments at 9 (per capita income and telephone penetration rate in the Commonwealth of Northern Marianas Islands (CNMI) are among lowest in the nation); Puerto Rico Tel. Co. comments at 25-26 (factors such as tropical climate, high cost of shipping and topography contribute to high cost of providing service to insular areas); CNMI NPRM comments at 6 (telecommunications services are essential in CNMI because the islands' distance from the U.S. mainland impedes travel and mail delivery).

²⁴⁷ Recommended Decision, 12 FCC Rcd at 152.

²⁴⁸ *See, e.g.*, People For comments at 9.

²⁴⁹ People For comments at 9. We also recognize that lower income levels make telephone service less affordable, as evidenced by Puerto Rico, which has a per capita income of \$4,177 (compared with a per capita income of \$14,420 for the rest of the United States) and a subscribership level of 74 percent (compared with approximately 94% for the rest of the United States). Puerto Rico Tel. Co. comments at 5, 15 n.29.

²⁵⁰ Recommended Decision, 12 FCC Rcd at 152.

114. Non-Rate Factors. Consistent with the Joint Board's finding, the record demonstrates that various other non-rate factors affect a consumer's ability to afford telephone service.²⁵¹ We agree with the Joint Board's assessment and commenters' contentions that the size of a customer's local calling area is one factor to consider when assessing affordability.²⁵² Specifically, we concur with the Joint Board's finding that the scope of the local calling area "directly and significantly impacts affordability," and, thus, should be a factor to be weighed when determining the affordability of rates.²⁵³ We further agree with the Joint Board that, in considering this factor, an examination that would focus solely on the number of subscribers to which one has access for local service in a local calling area would be insufficient.²⁵⁴ Instead, as the Joint Board recommended, a determination that the calling area reflects the pertinent "community of interest," allowing subscribers to call hospitals, schools, and other essential services without incurring a toll charge, is appropriate.²⁵⁵ In reaching this conclusion, we agree with United Utilities and other commenters that affordability is affected by the amount of toll charges a consumer incurs to contact essential service providers such as hospitals, schools, and government offices that are located outside of the consumer's local calling area.²⁵⁶ Toll charges can greatly increase a consumer's expenditure on telecommunications services, mitigating the benefits of universal service support. In addition, rural consumers who must place toll calls to contact essential services that urban consumers may reach by placing a local call cannot be said to pay "reasonably comparable" rates for local telephone service when the base rates of the service are the same in both areas.²⁵⁷ Thus, we find that a determination of rate affordability should consider the range of a subscriber's local calling area, particularly whether the subscriber must incur toll charges to contact essential public service providers.

115. In addition, we agree with the Joint Board²⁵⁸ and commenters²⁵⁹ that consumer

²⁵¹ Recommended Decision, 12 FCC Rcd at 151-153.

²⁵² Recommended Decision, 12 FCC Rcd at 152.

²⁵³ Recommended Decision, 12 FCC Rcd at 152.

²⁵⁴ Recommended Decision, 12 FCC Rcd at 152.

²⁵⁵ Recommended Decision, 12 FCC Rcd at 152.

²⁵⁶ United Utilities comments at 4. *See also* People For comments at 8-9; Vermont comments at 14.

²⁵⁷ *See* 47 U.S.C. § 254(b)(3).

²⁵⁸ Recommended Decision, 12 FCC Rcd at 153.

²⁵⁹ Bell Atlantic comments at 16; CNMI comments at 35; Governor of Guam comments at 9; Minnesota Coalition comments at 10; People For comments at 9-10.

income levels should be among the factors considered when assessing rate affordability. We concur with the Joint Board's finding that a nexus exists between income level and the ability to afford universal service.²⁶⁰ As the Joint Board observed, a rate that is affordable to affluent customers may not be affordable to lower-income customers.²⁶¹ We agree with the Joint Board that, in light of the significant disparity in income levels throughout the country, per-capita income of a local or regional area, and not a national median, should be considered in determining affordability.²⁶² As the Joint Board concluded, determining affordability based on a percentage of the national median income would be inequitable because of the significant disparities in income levels across the country.²⁶³ Specifically, we agree with Minnesota Coalition that such a standard would tend to overestimate the price at which services are affordable when applied to a service area where income level is significantly below the national median.²⁶⁴ Accordingly, we decline to adopt proposals to establish nationwide standards for measuring the impact of customer income levels on affordability.²⁶⁵ We also find that establishing a formula based on percentages of consumers' disposable income dedicated to telecommunications services, as suggested by People For, would over-emphasize income levels in relation to other non-rate factors that may affect affordability and fail to reflect the effect of local circumstances on the affordability of a particular rate.²⁶⁶

116. We also agree with the Joint Board²⁶⁷ and commenters that cost of living²⁶⁸ and population density²⁶⁹ affect rate affordability. Like income levels, cost of living affects how much a consumer can afford to pay for universal services. As discussed above, the size of a consumer's calling area, which tends to be smaller in areas with low population density, affects affordability. In addition, given that cost of living and population density, like income

²⁶⁰ Recommended Decision, 12 FCC Rcd at 153.

²⁶¹ Recommended Decision, 12 FCC Rcd at 153.

²⁶² Recommended Decision, 12 FCC Rcd at 153.

²⁶³ Recommended Decision, 12 FCC Rcd at 153.

²⁶⁴ Minnesota Coalition comments at 12.

²⁶⁵ *See, e.g.*, People For comments at 9.

²⁶⁶ *See* People For comments at 9.

²⁶⁷ Recommended Decision, 12 FCC Rcd at 151.

²⁶⁸ *See, e.g.*, Bell Atlantic comments at 16; CNMI comments at 35; Minnesota Coalition comments at 10.

²⁶⁹ *See, e.g.*, Bell Atlantic comments at 16; Governor of Guam comments at 9. Strictly speaking, population density affects cost because, in areas with low population density, carriers' costs are generally higher.

levels, are factors that vary across local or regional areas, we find that these factors should be considered by region or locality.

117. Finally, we agree with and adopt the Joint Board's finding that legitimate local variations in rate design may affect affordability.²⁷⁰ As identified by the Joint Board, such variations include the proportion of fixed costs allocated between local services and intrastate toll services; proportions of local service revenue derived from per-minute charges and monthly recurring charges; and the imposition of mileage charges to recover additional revenues from customers located a significant distance from the wire center.²⁷¹ We find that states, by virtue of their local rate-setting authority, are best qualified to assess these factors in the context of considering rate affordability.

118. Determining Rate Affordability. We agree with the Joint Board that states should exercise initial responsibility, consistent with the standards set forth above, for determining the affordability of rates.²⁷² We further concur with the Joint Board's conclusion that state commissions, by virtue of their rate-setting roles, are the appropriate fora for consumers wishing to challenge the affordability of intrastate rates for both local and toll services.²⁷³ As the Joint Board determined, the unique characteristics of each jurisdiction render the states better suited than the Commission to make determinations regarding rate affordability.²⁷⁴ Each of the factors proposed by parties and endorsed by the Joint Board with the exception of subscribership levels -- namely, local calling area size, income levels, cost of living, and population density -- represents data that state regulators, as opposed to the Commission, are best situated to obtain and analyze.²⁷⁵ For example, state regulators have access to information collected at the state level pertaining to income levels and the cost of living within their respective state. Guided by the Joint Board's recommended joint federal-state approach to monitoring and assessing affordability,²⁷⁶ we encourage states to submit to the Commission summary reports of the data collected at the state level that could assist the Commission in its assessment of affordability.

²⁷⁰ Recommended Decision, 12 FCC Rcd at 153.

²⁷¹ Recommended Decision, 12 FCC Rcd at 153.

²⁷² Recommended Decision, 12 FCC Rcd at 153.

²⁷³ Recommended Decision, 12 FCC Rcd at 153.

²⁷⁴ Recommended Decision, 12 FCC Rcd at 153.

²⁷⁵ See Recommended Decision, 12 FCC Rcd at 153.

²⁷⁶ See Recommended Decision, 12 FCC Rcd at 154.

119. We note that in the Recommended Decision the Joint Board envisioned the Commission and affected states working together informally in states where "subscriberhip levels fall from the current levels on a statewide basis."²⁷⁷ We do not, however, adopt Puerto Rico Tel. Co.'s proposal for automatic federal intervention in states in which the subscriberhip level is more than five percent below the national average.²⁷⁸ Nor do we agree with Bell Atlantic's contention that the Commission should intervene only when a state experiences a "statistically significant" drop in telephone penetration levels and requests the Commission's assistance in providing a remedy for its declining subscriberhip.²⁷⁹ Neither of these suggested approaches would give the Commission and the states sufficient flexibility to determine, on a state by state basis, when circumstances warrant Commission intervention, and when state action alone will remedy the cause or causes of a low or declining subscriberhip level.

120. As the Joint Board recommended, the Commission will work in concert with states and U.S. territories and possessions informally to address instances of low or declining subscriberhip levels.²⁸⁰ Such informal cooperation may consist of sharing data or conducting joint inquiries in an attempt to determine the cause of low or declining subscriberhip rates in a given state, or providing other assistance requested by a state. As the Joint Board recognized, states have the ability to make the primary determination of affordability. We will defer to the states for guidance on how best to implement federal-state collaborative efforts to ensure affordability. We find that this dual approach in which both the states and the Commission play significant roles in ensuring affordability is consistent with the statutory mandate embodied in section 254(i).

121. In addition, consistent with the Joint Board's recommendation, where "necessary and appropriate," the Commission, working with the affected state or U.S. territory or possession, will open an inquiry to take such action as is necessary to fulfill the requirements of section 254. We conclude that such action is warranted with respect to insular areas. The record indicates that subscriberhip levels in insular areas are particularly low.²⁸¹ Accordingly, we will issue a Public Notice to solicit further comment on the factors that contribute to the low subscriberhip levels that currently exist in insular areas, and to

²⁷⁷ Recommended Decision, 12 FCC Rcd at 154.

²⁷⁸ See Puerto Rico Tel. Co. comments at 27.

²⁷⁹ See Bell Atlantic comments at 16.

²⁸⁰ See Recommended Decision, 12 FCC Rcd at 154. See also Washington UTC comments at 11.

²⁸¹ See Puerto Rico Tel. Co. comments at 5 (telephone subscriberhip is 72 percent in Puerto Rico); CNMI NPRM comments at 10 (telephone subscriberhip is 66.8 percent in CNMI according to 1990 Census data).

examine ways to improve subscribership in these areas.²⁸²

122. Some commenters, including the Department of Interior, have suggested that the Commission provide universal service support for rates that are found to be unaffordable or where subscribership levels decline from current levels.²⁸³ We agree that, if subscribership levels begin to drop significantly from current levels, we may need to take further action. Among the benefits subscribership brings to individuals is access to essential services, such as emergency service providers, and access to entities such as schools, health care facilities and local governments. In addition, subscribers enjoy the increased value of the telephone network, i.e., the large numbers of people who can be reached via the network, that results from high subscribership levels. We agree with Puerto Rico Tel. Co. that, because the Puerto Rico subscribership level remains significantly below the national average, it is not appropriate to delay action until a subscribership level that is already low declines further.²⁸⁴ As discussed above, we find that further action is warranted with respect to insular areas.

123. In addition, we will continue actively to monitor subscribership across a wide variety of income levels and demographic groups and encourage states to do likewise. The Commission currently uses Census Bureau data to publish reports that illustrate subscribership trends among households, including subscribership by state, as well as nationwide subscribership rates by categories including income level, race, and age of household members, and household size.²⁸⁵ We find that any response to a decline in subscribership revealed by our analysis of the relevant data should be tailored to those who need assistance to stay connected to the network.²⁸⁶

124. Contrary to the suggestion of those commenters that favor linking universal service support to subscribership levels, we concur with the Joint Board's recommendation to implement a national benchmark to calculate the amount of support eligible

²⁸² We recognize that, although the record includes data regarding Puerto Rico, Guam and CNMI, we have no data with respect to American Samoa. We strongly encourage American Samoa to supplement the record in this proceeding.

²⁸³ Interior reply comments at 2. *See also* Governor of Guam comments at 10.

²⁸⁴ Puerto Rico Tel. Co. comments at 17.

²⁸⁵ The Commission publishes these reports three times per year based on the Current Population Surveys of the Census Bureau for the months of March, July, and November. In addition, the Commission periodically publishes telephone penetration reports that relate subscribership data to other questions on the Current Population Survey questionnaires.

²⁸⁶ *See infra* section VIII.

telecommunications carriers will receive for serving rural, insular, and high cost areas.²⁸⁷ The Joint Board declined to establish a benchmark based on income or subscribership and specifically did not equate the benchmark support levels with affordability.²⁸⁸ We agree. Setting the rural, insular and high cost support benchmark based on income and subscribership would fail to target universal service assistance and could therefore needlessly increase the amount of universal service support. Recent data show that telephone subscribership was 96.2 percent in 1996 for households with annual incomes of at least \$15,175 and 85.4 percent for households with annual incomes below \$15,175.²⁸⁹ The Joint Board concluded that, because telephone penetration declines significantly for low-income households, the impact of household income is more appropriately addressed through programs designed to help low-income households obtain and retain telephone service, rather than as part of the high cost support mechanism.²⁹⁰ Accordingly, we adopt the Joint Board's recommendation to channel support designed to assist low-income consumers through the Lifeline and Link Up programs, rather than through the high cost support methodology. As discussed below, Lifeline and Link Up are programs that are specifically targeted to assisting low-income consumers. Accordingly, these programs provide the best source of assistance for individuals to obtain and retain universal service, and, therefore, help maintain and improve telephone subscribership.²⁹¹

125. Maintaining Affordable Rates. Several parties express concern regarding the relationship between expanding the level of universal service funding and the affordability of rates for end users who, they argue, ultimately must pay for an expanded funding obligation.²⁹² As noted, an explicit principle of section 254 is that quality services should be "affordable" for all consumers.²⁹³ At the same time, the 1996 Act compels the Commission to

²⁸⁷ Recommended Decision, 12 FCC Rcd at 247.

²⁸⁸ Recommended Decision, 12 FCC Rcd at 247.

²⁸⁹ Federal Communications Commission, Industry Analysis Division, *Telephone Penetration by Income by State* at 15, 24, 33 (rel. February 24, 1997).

²⁹⁰ Recommended Decision, 12 FCC Rcd at 247.

²⁹¹ See *infra* section VIII.

²⁹² See, e.g., PCIA comments at 7; Sprint comments at 2-3; Motorola comments at 9-10.

²⁹³ 47 U.S.C. §§ 254(b)(1) ("[q]uality services should be available at just, reasonable, and affordable rates") and 254(i) ("[t]he Commission and the States should ensure that universal service is available at rates that are just, reasonable, and affordable.").

expand the category of beneficiaries of universal service support.²⁹⁴ We are mindful of the effects that expanded universal service mechanisms may have on consumers, and adopt specific measures designed to ensure that the costs of universal service are no higher than needed to comply with the statutory mandates of section 254.²⁹⁵

126. Regarding the concerns of Puerto Rico Tel. Co. and other parties that rates will increase as the Commission implements the universal service and other reforms required by the 1996 Act,²⁹⁶ we note that the Commission and the states have a joint obligation to ensure that universal service is available at rates that are affordable.²⁹⁷ As discussed above, we believe that the states must play an important role in making affordability determinations, and the Commission will work in concert with the states to that end. Consistent with the Joint Board's recommendation that the Commission continue to oversee the development of the concept of affordability, we will continue to monitor subscribership and rates and, if necessary, will propose measures designed to ensure that consumers in all regions of the country receive universal service at just, reasonable and affordable rates.²⁹⁸

²⁹⁴ See 47 U.S.C. § 254(h) (universal service support for eligible schools, libraries, and rural health care providers).

²⁹⁵ See, e.g., *supra* section IV (including within the definition of universal service only those "core" services deemed necessary to fulfill the Commission's responsibility under section 254); *infra* section X (adopting the Joint Board's proposal to cap the annual amount of support for schools and libraries).

²⁹⁶ Puerto Rico Tel. Co. comments at 10-11. See also Airtouch comments at 3-4; PCIA comments at 7; Sprint comments at 2-3; Motorola reply comments at 9-10.

²⁹⁷ See 47 U.S.C. § 254(i).

²⁹⁸ See Recommended Decision, 12 FCC Rcd at 153.